

Title (en)

OPTOELECTRONIC SENSOR AND METHOD FOR DETECTING OBJECTS IN A SURVEILLANCE AREA

Title (de)

OPTOELEKTRONISCHER SENSOR UND VERFAHREN ZUM ERFASSEN VON OBJEKTEN IN EINEM ÜBERWACHUNGSBEREICH

Title (fr)

CAPTEUR OPTOELECTRONIQUE ET PROCÉDÉ DE DÉTECTION D'OBJETS DANS UNE ZONE DE SURVEILLANCE

Publication

**EP 3438691 B1 20210714 (DE)**

Application

**EP 18184422 A 20180719**

Priority

DE 102017117694 A 20170804

Abstract (en)

[origin: US2019041545A1] An optoelectronic sensor for detecting objects in a monitored zone is provided that has a light transmitter having a plurality of individual light sources and a transmission optics arranged in front of the light transmitter for transmitting a transmitted light beam that is composed of a plurality of individual light beams of the individual light sources; a light receiver for generating a received signal from the transmitted light beam remitted in the monitored zone and incident on the light receiver; and an evaluation unit for detecting the objects from the received signal. An optical deflection element is arranged between the light transmitter and the transmission optics and has microoptical zones which are associated with the individual light sources and which deflect the individual light beams onto one another such that the cross-sections of the individual light beams together take up a smaller area in a virtual image plane in front of the transmission optics than the individual light sources themselves.

IPC 8 full level

**G01S 7/481** (2006.01); **G01S 17/04** (2020.01); **G01S 17/42** (2006.01); **G01S 17/48** (2006.01)

CPC (source: EP US)

**G01S 7/4815** (2013.01 - EP US); **G01S 17/04** (2020.01 - EP US); **G01S 17/42** (2013.01 - EP US); **G01S 17/48** (2013.01 - EP US); **G01V 8/12** (2013.01 - US); **H01L 31/107** (2013.01 - US); **H01L 31/167** (2013.01 - US); **H01S 5/0071** (2013.01 - US); **H01S 5/02326** (2021.01 - US); **H01S 5/183** (2013.01 - US); **H01S 5/423** (2013.01 - US)

Citation (examination)

US 2017115497 A1 20170427 - CHEN TONG [US], et al

Cited by

CN117192634A

Designated contracting state (EPC)

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DOCDB simple family (application)

**EP 18184422 A 20180719**; DE 102017117694 A 20170804; JP 2018137456 A 20180723; US 201816053928 A 20180803